UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
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ATLANTA, GEORGIA 30303-8960

March 18, 2009

Mr. Richard Toennisson
Tennessee Valley Authority
400 West Summit Hill Drive
Knoxville, Tennessee 37902

Subject: EPA NEPA Review of TVA FEIS for "Watts Bar Reservoir Land Management Plan"; Loudon, Meigs, Rhea, and Roanne Counties; CEQ# 20090041; ERP# TVA-E65073-TN

Dear Mr. Toennisson:

The U.S. Environmental Protection Agency (EPA) has reviewed the subject Tennessee Valley Authority (TVA) Final Environmental Impact Statement (FEIS) in accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. With this FEIS and the previous amended Draft EIS of 2007 (2007 DEIS), TVA proposes to supplement its 2005 EIS regarding the 2005 Land Plan (which updated the 1988 TVA Land Plan). The update is to modify the 2005 EIS in response to TVA's November 2006 Land Policy, other administrative changes and public comments. EPA provided NEPA comments on the 2007 DEIS in a letter dated September 21, 2007.

The Watts Bar Reservoir is a 65-year-old, multipurpose reservoir in Tennessee with a shoreline of 721 miles. The current TVA land plan covers approximately 16,200 acres of public lands owned and managed by TVA. The Watts Bar Reservoir area includes the Watts Bar Nuclear Plant, Kingston Fossil Plant, Watts Bar Dam Reservation, and the former Clinch River Breeder Reactor site.

As it did in the 2007 DEIS, TVA continues to identify the Modified Alternative B ("Modified Development and Recreation") as its NEPA preferred alternative, preferring it over Modified Alternative C ("Modified Conservation and Recreation") and the Modified Alternative A ("No Action"). Compared to Alternatives B and C in the original Land Plan, EPA finds that both Modified B and C alternatives are environmentally more attractive than the original Alternatives B and C, but that Modified C provides the most overall protection for the environment. Specifically, Modified C's correlation with less development reduces impacts to wetlands, aquatics, shorelines, riparian vegetation, terrestrial areas and other natural habitat as well as minimizing air and noise emissions. Accordingly, as we indicated in our NEPA comment letter on the 2007 DEIS, EPA continues to prefer the environmental benefits of Modified C. Page S-8 of the FEIS states, "...Modified Alternative B would have greater potential for impacts to natural resources than Alternative C, but less than Modified Alternative A" and "[t]he

environmentally preferred alternative is Alternative C, which has the least adverse impact on the environment of all the alternatives." However, TVA maintains that Modified Alternative B "...provides suitable opportunities for economic development and the conservation of natural resources."

The 2007 DEIS and the present FEIS allocate lands (acres) into several land use zones. These are "Project Operations" (Zone 2), "Sensitive Resource Management" (Zone 3), "Natural Resource Conservation" (Zone 4), "Industrial" (Zone 5), "Developed Recreation" (Zone 6), and "Shoreline Access" (Zone 7). Of these, EPA is primarily concerned with Zones 3, 4, 5 and 6, and favors Zones 3 and 4 (and to a lesser degree Zone 6) from an environmental perspective. Since more development would be allowed with Modified B than with Modified C, the potential for water quality impacts of water access commercial or industrial development is therefore increased under Modified B as more land is allocated into Zones 5 and 6. However, we note (Table 2.2-1) that compared to the 2007 DEIS, the FEIS allocates less acreage into Zone 5 for both Modified B (357 ac vs. 1,253 ac) and Modified C (77 ac vs. 92 ac). We appreciate these reductions to industrial Zone 4. In addition, Zone 3 allocations increased equally for both alternatives (3,780 ac vs. 3,666 ac), Zone 4 allocation increased for Modified B (3,857 ac vs. 3,810 ac) although unfortunately decreased for Modified C (5,098 ac vs. 5,233 ac), and Zone 6 decreased for Modified B (1,552 ac vs. 1,622 ac) and Modified C (1,351 ac vs. 1,360 ac). With the exception of Zone 4 for Modified C, these changes in the FEIS appear positive from an environmental perspective. We suggest that the TVA Record of Decision (ROD) highlight the positive environmental changes for each alternative.

Given the generally positive changes in land allocations since the 2007 DEIS, we find that the Watts Bar Reservoir Land Management Plan is improved in the FEIS. As such, we believe management plan to be more consistent with the purposes of a reservoir land management plan and more consistent with "...TVA's mandate to balance the environment with industrial and economic development" (pg. 17) in the Tennessee Valley. Despite these benefits, EPA continues to prefer Modified C since it remains the environmentally preferred alternative and since less land is allocated to industrial Zone 5 than for Modified B (357 ac vs. 77 ac). Moreover, the acreage for Modified C is apparently only associated with existing industrial facilities (pg. 33) while acreage for Modified B is apparently less restricted (pg. 31). This implies that new industrial sites along the reservoir shoreline could eventuate under Modified B with their potential water quality impacts. Industrial facilities under Modified C would have the advantage of being collocated with already developed sites. We also note that Modified C still allows for some industrial development (77 ac allocated to Zone 5) commensurate with TVA's mandate for economic development.

We assume that the TVA Board of Directors will be acting on public requests for development sites within Zones 5 and 6 as well as possible re-zonings. For both Modified B and C (particularly if TVA selects Modified B in the ROD), we recommend that only industries and light commercial establishments requiring water access or supply be allowed to locate on the shorelands/shoreline of the TVA Watts Bar Reservoir. Examples include barge terminals with suitable cargo for water transport such as grains

(barge transport also has the environmental benefit of reducing truck emissions), marinas sited in well flushed areas (and constructed/operated as certified Clean Marinas consistent with TVA's guidance), boat ramps, and light commercial establishments associated with parks. Shoreline facilities should also be adequately monitored for water quality effects. Moreover, whenever compatible with the industrial, commercial or recreational development, EPA recommends that a 100-foot buffer strip of natural vegetation and ground cover be retained between the shoreline and the development. For example, while a boat ramp would need to have direct access to water, the commercial portions of a park would not require any water access and therefore could be buffered from the shoreline. We assume this is already consistent with the TVA Shoreline Management Policy. Finally, based on its land policy for "residential use" (pg. 170), we assume that TVA will not allocate shorelands for residences. Moreover, given the significant number of existing platted private lands adjacent to the reservoir that are rapidly being developed (pg. 98), EPA also recommends that any requests for shoreline residential developments of TVA public lands will not be approved.

A current example highlighting the need to minimize and manage industrial development along reservoir shorelines is the coal ash/slurry spill in December 2008 at the TVA Kingston Fossil Plant located in the Watts Bar Reservoir area. While such conventional power plants have a need for access to a water supply, other industrial requests for TVA shoreland development subject to TVA's approval may not require direct or any water access, and could therefore be sited further inland. The TVA ROD might also address how the Watts Bar Reservoir Land Management Plan could be used to prevent or minimize future water-related accidents such as Kingston. If not already the case, a Watts Bar Reservoir Watershed Management Plan should also be developed by TVA and other prominent landowners/stakeholders in the watershed. Such a plan could help control non-point-source runoff into the reservoir and oversee the siting and management of any shoreline development.

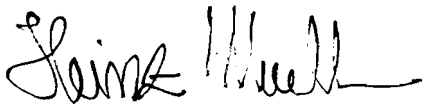
In addition to these comments, EPA has commented on TVA's responses (Appendix F) to our comment letter on the 2007 DEIS. We have provided our final comments on a few selected TVA responses in our enclosed *Detailed Comments*.

In summary, EPA appreciates the reduction in acreage allocations for industrial Zone 4 for both the Modified B and C alternatives in the FEIS. We find the Watts Bar Reservoir Land Management Plan is thereby improved overall. Nevertheless, we believe that Modified C continues to remain the environmentally preferred alternative since it minimizes the potential for environmental impacts by limiting the amount of land allocation (77 ac) for industrial development (Zone 4). Regardless of the alternative selected by TVA, we recommend that the TVA Board of Directors allows only industries and light commercial establishments requiring water access or supply to be located on the shorelands of the TVA Watts Bar Reservoir, with only those requiring direct access being located on the shoreline. We similarly recommend that any public requests for residential shoreline development of TVA lands at Watts Bar not be approved. If not already the case, we further recommend development of a Watts Bar Reservoir Watershed

Management Plan by TVA and other prominent landowners/stakeholders in the watershed to protect reservoir water quality.

We appreciate the opportunity to review this FEIS. Should you have questions on our comments above, please contact Chris Hoberg of my staff at 404/562-9619 or hoberg.chris@epa.gov.

Sincerely,



Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

cc: *Detailed Comments*

DETAILED COMMENTS

In regard to TVA's responses to our NEPA comment letter on the 2007 DEIS (Appendix F), we have provided the following final comments. For future reference, we suggest that the organization of TVA's responses be more user-friendly to the reader. Specifically, if the assigned response numbers are not provided on the copies of the comment letters (copies of correspondences are also found in App. F), then the response numbers should be indexed by author to facilitate locating those comments/responses in the appendix. Otherwise, this requires review of all responses to find the responses to individual/agency comments, which is unnecessarily cumbersome.

* TVA Response #5 (Timber Harvests) – We appreciate that this response clarifies that timber harvests in the "Natural Resource Conservation" Zone 4 "...would not be conducted for revenue production from a high-yield perspective." We agree with this approach to benefit watershed vegetation/wildlife and reservoir water quality.

* TVA Response #61 & #71 (Alternatives) – This 2007 DEIS comment discussed the fact that several agencies favored Modified C and EPA's suggestion of a hybrid alternative between Modified B and C which was more environmental than Modified B (i.e., if TVA were to continue to pursue Modified B). We find the "comment noted" response to be unresponsive. Instead, this response could have indicated that, in essence, the FEIS changes in allocations that reduce the acreage in industrial Zone 5 for both Modified B and C resemble such a hybrid alternative.

* TVA Response #63 (Additional NEPA) – It remains unclear from this response as to why the 2007 DEIS was termed an "amended DEIS" rather than a "supplemental DEIS". The 2005 TVA DEIS was either "amended" (if only additional information was provided) or "supplemented" (if more substantive changes were made).

* TVA Response #128 (Clean Marinas Initiative) – We support the TVA Clean Marinas Initiative. Based on the TVA website, however, we note that only one marina on Watts Bar Reservoir appears to be certified (Caney Creek Marina). Do other marinas exist and are they certifiable at their current locations and operations (or after changes in their operations)? We note from page 116 that two more private marinas may be located at the upper end of Watts Bar. Will these be certified?

* TVA Response # 132 (Wetlands) – The "comment noted" response to this comment regarding wetland avoidance does not provide any specifics on the compliance strategy, i.e., how will the Clean Water Act 404(b)(1) Guidelines be met in the Watts Bar Reservoir Land Management Plan?